

**BY ORDER OF THE COMMANDER  
911 AIRLIFT WING**

**911 AIRLIFT WING INSTRUCTION 21-103**

**13 MAY 2011**

**Maintenance**



**FOREIGN OBJECT PREVENTION  
PROGRAM**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

OPR: 911 MXG/MXQ

Certified by: 911 AW/CC  
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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Managing Aerospace Equipment Maintenance*, Air Force Instruction (AFI) 21-101/AFRC Sup 1, *Aircraft and Equipment Maintenance Management* and AFI 91-204, *Safety Investigations and Reports*. It establishes procedures for Foreign Object Damage (FOD) Prevention Program. This publication applies to all personnel performing duties while at 911 Airlift Wing.

**SUMMARY OF CHANGES**

Paragraphs 1.1, 2.1, 3.1, 3.2, 5.1, 6.2, 6.4, 7.1, 8.3. Paragraphs added. 6.8, 6.9.

**1. General:**

1.1. The FOD Prevention Program will not be limited to aircraft and aircraft jet engines. It will be in effect at all times, before, during and after completion of all tasks. FOD is defined as any damage to an aircraft engine, aircraft system, equipment or tire caused by an external foreign object, which may or may not degrade the required safety and/or operational characteristics of the engine, aircraft system, or tire. In accordance with AFI 21-101/AFRC SUP 1, paragraph 14.19 the 911 AW Vice Commander (AW/CV) is responsible for ensuring an effective Foreign Object Damage (FOD) Prevention Program is established.

**1.2. The Designated FOD areas are:**

- 1.2.1. Aircraft parking ramp
- 1.2.2. All aircraft maintenance facilities
- 1.2.3. Approach aprons to hangars

**2. Responsibilities:**

2.1. The 911 AW Vice Commander (CV) is responsible for ensuring an effective Foreign Object Damage Program is established. 911 AW/CV will be assigned as the FOD Prevention

Program Manager. 911 AW/CV will be appointed a Wing FOD Monitor as outlined in AFI 21-101/AFRC SUP 1 paragraph [14.19.7.1](#)

2.2. All flight chiefs and workcenter supervisors will brief their personnel on the FOD Prevention Program.

2.3. Maintenance Operations Center (MOC) will notify the FOD Prevention Manager, Wing Safety and Quality Assurance on all FOD discrepancies and incidents.

2.4. The Maintenance Group Quality Assurance (QA) section will monitor all discrepancies, incidents and damage caused by FOD either during routine inspections or as directed by Managers.

### **3. Mishap Investigations and Reporting.**

3.1. All FOD mishaps, investigations, and reporting will be accomplished in accordance with AFI 21-101/AFRC SUP 1, paragraph [14.19.9](#). The MOC will notify QA and the Wing FOD Monitor of any suspected or confirmed FOD damage and/or potential FOD risks to aircraft or equipment.

3.2. All aircraft, un-installed aircraft engines, and AGE equipment sustaining FOD damage will be impounded for investigation.

3.3. Wing FOD Monitor will report all FOD incidents to Base Safety who in turn notifies the AFRC Manager by telephone, fax or e-mail as soon as damage is known, but no later than eight (8) hours after occurrence.

### **4. Bird Strike Procedure (BASH Program).**

4.1. Any person discovering bird strike damage and/or remains will notify the MOC. The MOC will notify QA for investigation.

4.2. QA will inform the Base Safety Office and then investigate the bird strike for possible FOD damage to the aircraft.

### **5. Dropped Object Prevention Program (DOPP).**

5.1. Personnel will adhere to the Dropped Object Prevention Program (DOPP) and follow AFI 21-101/AFRC SUP 1 paragraph [14.11](#) and 911 AWI 21-102, *Dropped Object Prevention and Reporting Program*.

### **6. Specific Guidance:**

6.1. Engine inlet and dust covers, APU air intake scoop plug, air conditioning scoop plugs and pitot covers will be installed at all times except during operation of engine/APU, or during maintenance in the air intake and exhaust sections of engines. Personnel will follow guidance in preflight work cards for removal of ducts, ports and probes.

6.2. In accordance with TO 00-20-1 Table 4.1 and AFI 21-101/AFRC SUP 1 paragraph [14.19.2.3](#), engine intakes and exhausts will be inspected for FOD prior to each engine start and documented with a RED X in the symbol block on the computer generated Maintenance Information System (MIS) AFTO IMT 781A, **Maintenance Discrepancy and Work Document**, with the following statement: "**All four engine intakes and exhausts inspected for FOD prior to engine start.**"

6.3. All personnel approaching FOD designated areas will comply with FOD prevention procedures (i.e. Tire check at ECP and ramp access points). Items to inspect include but are not limited to:

6.3.1. Tires for rocks and debris.

6.3.2. Exterior of vehicle for loose objects.

6.3.3. Interior for objects that could fall out undetected.

6.4. All organizations entering the flight line or aircraft maintenance areas will utilize tool control/accountability measures. Consolidated tool kits (CTK) and rags will be accounted for in accordance with procedures outlined in AFI 21-101/AFRC SUP 1.

6.5. FOD walks will be held at least weekly except during inclement weather conditions (i.e. cold, rain, ice, snow etc.), at the discretion of the Wing FOD Monitor.

6.6. Flashlights with clips will have the clips removed prior to use on or around aircraft, uninstalled engines, and AGE.

6.7. Personal tools are not authorized on the flight line or in any maintenance area. (e.g. mini-mag flashlights, leathermans, buck knives, etc). Government tools permanently assigned to individuals or duty position (i.e. government issued headsets, flashlights, etc.) will be marked in accordance with AFI 21-101/AFRC SUP 1.

6.8. In all aircraft or AGE maintenance operations, “parts bags” will be utilized as much as practical to secure extra or attaching hardware, work order residue, or any other potential FOD source. The bag will be attached to the component or part when possible and labeled with quantity, equipment identification, and nomenclature of part or component (i.e. 24 screws, left wing anti-ice access panel, Aircraft 810). The intent of this instruction is not to label every component for identification but rather to provide a means of accurately accounting for common hardware and other easily misplaced items that may cause a potential for FOD risks.

6.9. In addition to inspecting the quality of work performed for grounding conditions (Red X), the person authorized to clear the grounding condition is also certifying that all tools, equipment, and work order residue are secure and/or accounted for and a final FOD inspection has been accomplished by the individual who signs the “Inspected by” block of the AFTO Form 781A or AFTO Form 244, **Industrial/Support Equipment Record**. In all other cases of aircraft or AGE maintenance, the technician performing the work will ensure that all tools, equipment, and/or work order residue are accounted for in addition to a final FOD inspection. Technicians who sign the “Corrected by” block of the AFTO Form 781A or AFTO Form 244 are responsible for this inspection.

## 7. Wearing of Apparel:

7.1. Hats may be worn within the flight line area for head protection due to weather conditions. Hats are not authorized for wear during direct aircraft launch/recovery or engine/APU operation(s).

7.2. Wigs, hairpieces, metal and hard plastic hair fasteners, finger rings, necklaces (except for line badge lanyard), earrings, decorative hatpins, or hatpins of any kind and other jewelry will not be authorized for wear in FOD designated areas.

7.3. Wearing of loose clothing and/or articles around engines/equipment is prohibited.

7.4. Line badges will be secured with either a plastic armband, tying nylon cord to clothing, or using lanyard type necklaces. Metal clips will not be worn under any circumstances.

7.5. While in FOD controlled areas, metal insignias may be encased in plastic and worn on uniform.

**8. FOD Prevention Committee:**

8.1. 911 AW/CV will chair the committee. In the absence of 911 AW/CV, 911 MXG/CC will chair. The Committee will have a meeting at least quarterly unless FOD Damage rate is above established standards, in accordance with AFI 21-101/AFRC Sup 1, paragraph **14.19.10**, in that case a meeting will be held monthly.

8.2. Minimum attendee representatives are Group Commanders, Commanders of units with maintenance personnel, Safety, Airfield Manager, and Security Forces, contractors, CE and managers of contractors with access to designated FOD areas. The chairperson should designate additional attendees as required. The meeting will identify negative trends and develop action plans to resolve them. The meeting should also be used to recognize personnel making significant contributions to FOD prevention.

8.3. Suggested agenda items include (see AFI 21-101/AFRC Sup 1, paragraph **14.19.10.1**).

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Commander